

Does the Nonurologic Scientific Community Understand Urothelial Bladder Cancer?

Bryan, Richard T; Kirby, Roger; Mostafid, Hugh

DOI:

[10.1016/j.eururo.2014.04.010](https://doi.org/10.1016/j.eururo.2014.04.010)

License:

Creative Commons: Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)

Document Version

Peer reviewed version

Citation for published version (Harvard):

Bryan, RT, Kirby, R & Mostafid, H 2014, 'Does the Nonurologic Scientific Community Understand Urothelial Bladder Cancer?', *European urology*, vol. 66, no. 3, pp. 601-2. <https://doi.org/10.1016/j.eururo.2014.04.010>

[Link to publication on Research at Birmingham portal](#)

Publisher Rights Statement:

Checked October 2015

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.

DOES THE NON-UROLOGIC SCIENTIFIC COMMUNITY UNDERSTAND UROTHELIAL BLADDER CANCER?

Richard T Bryan, Roger Kirby, Hugh Mostafid

RT Bryan PhD MRCS	School of Cancer Sciences, University of Birmingham, UK and Action on Bladder Cancer, London, UK.
R Kirby MD FRCS(Urol)	The Prostate Centre, London, UK and The Urology Foundation, London UK.
H Mostafid FRCS(Urol) FEBU	Royal Berkshire NHS Foundation Trust, Reading, UK and Action on Bladder Cancer, London, UK.

Keywords: bladder cancer, scientific community.

Word count: 414

Correspondence to: Mr RT Bryan, School of Cancer Sciences, University of Birmingham,
Edgbaston, Birmingham B15 2TT, United Kingdom.

E: r.t.bryan@bham.ac.uk, T: +44 121 414 7870, F: +44 121 414 2230.

In a Research Highlights editorial entitled ‘Seemingly Similar’ in April’s Nature Reviews Cancer the opening line read: *“Bladder cancer is classified as either a low-grade, non-muscle-invasive disease, which needs lifelong surveillance to guard against recurrence, or a high-grade, muscle-invasive disease, which is likely to metastasize”*. Even the important paper that this editorial discusses uses the description *“Low-grade non-muscle invasive (“superficial”) cancers, which account for 70% of tumor incidence, are not immediately life-threatening, but they have a propensity for recurrence that necessitates costly lifelong surveillance”* [1]. Surely, these statements either represent a clear misunderstanding of the disease or a very poor use of terminology?

As we know, non-muscle-invasive bladder cancer (NMIBC) is classified as either low- or high-grade, or as grades 1, 2, or 3 [2]. High-grade NMIBC represents at least 15% of all bladder cancers [3], and is a significant disease with an accompanying significant risk of recurrence and progression to muscle-invasive disease (MIBC) [2;4]. Furthermore, a meaningful proportion of patients initially diagnosed with NMIBC will ultimately die from bladder cancer [5]. Such is the risk of progression for large and/or multiple high-grade or grade 3 pT1 NMIBCs that many clinicians will offer patients radical cystectomy as first-line treatment instead of bladder-preserving therapy (e.g. intravesical BCG) [2].

It has taken over a decade for urology to drop the term “superficial” bladder cancer and replace it with NMIBC, a better designation that does not downplay the significance of the disease both in terms of outcomes and costs to healthcare providers, patients and society [6;7].

Unfortunately, statements such as those above undermine some of this work by perpetuating the myth that NMIBC is somehow insignificant.

But why is there such misunderstanding? Admittedly, the majority of bladder cancer genome sequencing efforts are currently directed towards MIBC [1;8], but this patient group represents less than 25% of the incident bladder cancer population [3]. The most significant gains for bladder cancer patients (and healthcare providers) to be made from these approaches are likely to lie within the NMIBC population and especially those patients with high-grade or grade 3 pT1 disease [9]: we urgently need a better understanding of which of these patients would benefit from early aggressive treatment with radical cystectomy, whilst better initial management of patients with low-grade disease may allow less intensive surveillance and result in patient and economic benefits.

It is clear that we need to do more to educate the non-urologic scientific community regarding bladder cancer so that important basic science research does not ignore the majority of bladder cancer patients.

Reference List

- (1) Choi W, Porten S, Kim S, Willis D, Plimack ER, Hoffman-Censits J, Roth B, Cheng T, Tran M, Lee IL, Melquist J, Bondaruk J, Majewski T, Zhang S, Pretzsch S, Baggerly K, Siefker-Radtke A, Czerniak B, Dinney CP, McConkey DJ. Identification of distinct basal and luminal subtypes of muscle-invasive bladder cancer with different sensitivities to frontline chemotherapy. *Cancer Cell* 2014; 25:152-165.
- (2) Babjuk M, Burger M, Zigeuner R, Shariat SF, van Rhijn BW, Comperat E, Sylvester RJ, Kaasinen E, Bohle A, Palou RJ, Roupret M. EAU Guidelines on Non-Muscle-invasive Urothelial Carcinoma of the Bladder: Update 2013. *Eur Urol* 2013.
- (3) Boustead GB, Fowler S, Swamy R, Kocklebergh R, Hounscome L. Stage, grade and pathological characteristics of bladder cancer in the UK: British Association of Urological Surgeons (BAUS) Urological Tumour Registry. *BJU Int* 2013.
- (4) Sylvester RJ, van der Meijden AP, Oosterlinck W, Witjes JA, Bouffoux C, Denis L, Newling DW, Kurth K. Predicting recurrence and progression in individual patients with stage Ta T1 bladder cancer using EORTC risk tables: a combined analysis of 2596 patients from seven EORTC trials. *Eur Urol* 2006; 49:466-5.
- (5) Wallace DM, Bryan RT, Dunn JA, Begum G, Bathers S. Delay and survival in bladder cancer. *BJU Int* 2002; 89:868-878.
- (6) Bryan RT, Wallace DM. Have We Abandoned the "Superficial" in Bladder Cancer? *Eur Urol* 2009.
- (7) Svatek RS, Hollenbeck BK, Holmang S, Lee R, Kim SP, Stenzl A, Lotan Y. The Economics of Bladder Cancer: Costs and Considerations of Caring for This Disease. *Eur Urol* 2014.
- (8) Comprehensive molecular characterization of urothelial bladder carcinoma *Nature* 2014; 507:315-322.
- (9) Bryan RT, Kirby R, O'Brien T, Mostafid H. So Much Cost, Such Little Progress. *Eur Urol* 2014.